

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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| Appellants: | Fabio CASATI et al. | § | Confirmation No.: | 3326 |
| Serial No.: | 10/761,642 | § | Group Art Unit: | 2167 |
| Filed: | 01/21/2004 | § | Examiner: | S. F. Rayyan |
| For: | Displaying Metrics From An Alternative Representation Of A Database | § | Docket No.: | 200310151-1 |

APPEAL BRIEF

Mail Stop Appeal Brief – Patents
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Date: June 25, 2008

Sir:

Appellants hereby submit this Appeal Brief in connection with the above-identified application. A Notice of Appeal was electronically filed on June 6, 2008.

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Reply to Office Action of March 5, 2008**

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I. REAL PARTY IN INTEREST

The real party in interest is the Hewlett-Packard Development Company, L.P. (HPDC), a Texas Limited Partnership, having its principal place of business in Houston, Texas. HPDC is a wholly owned affiliate of Hewlett-Packard Company (HPC). The Assignment from the inventors to HPDC was recorded on January 21, 2004, at Reel/Frame 014915/0554.

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II. RELATED APPEALS AND INTERFERENCES

Appellants are unaware of any related appeals or interferences.

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III. STATUS OF THE CLAIMS

Originally filed claims: 1-20.

Claim cancellations: None.

Added claims: None.

Presently pending claims: 1-20.

Presently appealed claims: 1-20.

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IV. STATUS OF THE AMENDMENTS

No claims were amended after the Office action dated March 5, 2008.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

Some computer systems analyze data and generate reports based on the analyzed data. For example, a system may report profits by analyzing revenue and expenditures. A reporting application may be responsible for analyzing relevant data and generating the reports. In some cases, the reports generated by such a system use data collected at multiple levels of the organization. Mappings, data structures, and complex queries may need to be generated and executed by the reporting application to relate and transform the data into user-friendly information. Unfortunately, the performance of such systems may be adversely affected by the generation and execution of such mappings.

Appellants' contribution comprises tools and techniques that allow users to define, compute, analyze and/or monitor business and information technology metrics. Appellants' contribution includes, for example, a definition of generic mapping functions that can be reused for a number of metrics and reports. As a result, different reports can be defined without having to write new code. See e.g., para. [0014] and [0016]

In accordance with the illustrative invention of claim 1, a method comprises selecting, by a user, at least one metric (Fig. 2, 208-214) from an alternative representation of a database of existing data. See page 1, lines 1-6 of para. [0003]. The method further comprises selecting a mapping (Fig. 2, 202-206) based on the metric, invoking the mapping to create a search query, invoking an interpreter to execute the search query and return data related to the search query, and displaying the data related to the search query. See page 1, lines 1-6 of para. [0003]. See also paras. [0017]-[0038]; Figs. 4-5.

In accordance with the illustrative invention of claim 8, a computer-readable medium (Fig. 1, 110; lines 3-4 of para. [0013]) stores a program (Fig. 1, 114; lines 7-10 of para. [0013]) that is executable by a processor (Fig. 1, 108; lines 3-4 of para. [0013]). The program causes the processor to perform a method. The method includes maintaining existing data, storing metrics related to the existing data, selecting a mapping based on at least one metric, using the selected mapping, mapping the existing data to the metrics, and providing access

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to the existing data by referencing the metrics. See also paras. [0017]-[0038]; Figs. 4-5.

In accordance with the illustrative invention of claim 12, a system comprises a computer system (Fig. 1, 102; lines 1-3 of para. [0013]) having a central processing unit (Fig. 1, 108; lines 3-4 of para. [0013]), memory (Fig. 1, 110; lines 3-4 of para. [0013]), and a database (Figs. 1 and 2, 104; lines 1-5 of para. [0014]) that stores a previously created data set. The database comprises an alternative representation of the previously created data and an interpreter that executes search queries generated from mappings stored in the alternative representation. See also paras. [0017]-[0038]; Figs. 4-5.

In accordance with the illustrative invention of claim 18, a system comprises a computer system (Fig. 1, 102; lines 1-3 of para. [0013]) having a means for executing programs (Fig. 1, 108; lines 3-4 of para. [0013]) and a means for storing programs (Fig. 1, 110; lines 3-4 of para. [0013]). The means for storing is for storing a reporting application (Fig. 1, 114; lines 7-10 of para. [0013]) executable by the means for executing. See also Fig. 2. The system also comprises a database (Figs. 1 and 2, 104; lines 1-5 of para. [0014]) coupled to the computer system. The database stores a previously created data set. The database comprises an alternative representation of the previously created data and an interpreter that executes search queries generated from mappings stored in the alternative representation. See e.g., paras. [0017]-[0038]; Figs. 4-5.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

- A. Whether claims 1-9 and 11-20 are obvious (35 U.S.C. § 103) over US Pat Pub. No. 2003/0041044 (“Monestere”) in view of U.S. Pat. Pub. 2003/0115149 (“Dan”).
- B. Whether claim 10 is obvious over Monestere in view of Dan and U.S. Pat. Pub. No. 2005/0256766 (“Garcia”).
- C. Whether the specification has been properly objected to.

Appellants also note that in the Office Action of March 5, 2008, the Examiner included a section heading styled “35 USC § 101” and stated that “claims 1-8 are method claims” and that “claims 12-20 are directed to a system comprising a computer system.” The Examiner did not state that claims 1-8 and 12-20 were being rejected under § 101 and thus Appellants assume that the Examiner did not intend to reject such claims under § 101, and accordingly do not present arguments that such claims comply with § 101. Also, Appellants note that claim 8 is not a method claim.

VII. ARGUMENT

A. The § 103 rejections of claims 1-9 and 11-20

1. Claims 1-7

Claim 1 requires “selecting a mapping based on the at least one metric” and “invoking the mapping to create a search query.” Appellants do not find this combination of limitations in the art of record. The Examiner seems to analogize a search criterion and a search query in Monestere to the claimed “metric” and “mapping,” respectively. However, Appellants respectfully submit that the Examiner’s analysis is logically flawed when comparing the teachings of Monestere to claim 1. For example, a search query of Monestere is not selected based on a search criterion, and the search query naturally is not invoked to create the search query, as would be required by claim 1. No other art of record satisfies the deficiencies of Monestere.

Claim 1 is as follows. The highlighted limitations are those limitations that the Examiner concluded were not disclosed in Monestere.

1. A processor-based method comprising:
selecting, by a user, at least one metric from an alternative representation
of a database of existing data;
selecting a mapping based on the at least one metric;
invoking the mapping to create a search query;
invoking an interpreter to execute the search query and return data related
to the search query; and
displaying the data related to the search query.

The highlighted limitations specify that a metric is used to select a mapping and the mapping is invoked to create a query. Conceptually, the order of creation or use of the metric, mapping, and query is as follows:

Metric → Mapping → Query

(metric used to select a mapping which is invoked to create a query)

The Examiner has conceded that Monestere lacks these limitations and turned instead to Dan, specifically paras. [0049]-[0050]. The Examiner analogizes Dan's "function" (para. [0050]) to the claimed "mapping." For Dan's "function" to equate to the claimed "mapping," Dan's function would have to be selected based on a metric. However, Dan teaches that the metrics 740 "aggregate one or more other...metrics, according to a directive 745 or a function 750." Lines 1-4 of para. [0050]. As such, Dan's function is used to aggregate metrics together. Dan does not explain that the function is selected based on a metric.

The Examiner also seems to analogize Dan's reference to "scripts" at the end of para. [0050] to the claimed "query." Applicants have reviewed Dan, and do not find any teaching whatsoever that a script is a "query."

For either or both of these reasons, the Examiner has erred in rejecting claim 1 and its dependent claims 2-7. Based on the foregoing, Appellants respectfully submit that the rejections of claims in this grouping be reversed, and the claims set for issue.

2. Claims 8-9 and 11

Claim 8 requires "selecting a mapping based on the at least one metric." The Examiner conceded that this limitation is not disclosed in Monestere. Appellants do not find this limitation in Dan for much the same reason articulated above regarding claim 1. For at least this reason, Appellants respectfully submit that the Examiner has erred in rejecting claim 8 as well as dependent claims 9 and 11. Based on the foregoing, Appellants respectfully submit that the rejections of the claims in this grouping be reversed, and the claims set for issue.

3. Claims 12-17

Claim 12 requires "an interpreter that executes search queries generated from mappings." The Examiner concedes that Monestere lacks a teaching of "search queries generated from mappings" and instead turns to Dan. As explained above, Dan's scripts are not disclosed as being the queries.

Based on the foregoing, Appellants respectfully submit that the rejections of the claims in this grouping be reversed, and the claims set for issue.

4. Claims 18-20

Claim 18 requires “an interpreter that executes search queries generated from mappings.” The Examiner concedes that Monestere lacks a teaching of “search queries generated from mappings” and instead turns to Dan. As explained above, Dan’s scripts are not disclosed as being the queries.

Based on the foregoing, Appellants respectfully submit that the rejections of the claims in this grouping be reversed, and the claims set for issue.

B. The § 103 rejection of claim 10

Claim 10 depends from claim 8 and thus inherits the limitations of claim 8. As explained above, Appellants believe that the Examiner erred in rejecting claim 8 over Monestere in view of Dan. Garcia does not satisfy the deficiencies of Monestere and Dan. Thus, Appellants submit that the Examiner erred in rejecting claim 10 for at least the same reason as claim 8.

C. The specification objection

The Examiner stated that the specification fails to provide proper antecedent basis for the claimed subject matter. Specifically, the Examiner states that “claims 8-11 recite ‘computer readable medium.’” See Office Action p. 2.

The “computer readable medium” limitation (“computer readable medium storing a program that, when executed by a processor of a computer, performs a method...”) of claims 8-11 was included in claims 8-11 as originally filed. The originally filed claims form part of the specification and thus the specification does support claims 8-11. Further, the Fig. 1 of the specification shows a memory 110 that contains a reporting application 114. Paragraph [0013] (p. 3) states that the memory 110 comprises “any type of volatile or non-volatile memory, such as random access memory (RAM), read-only memory (ROM), and a hard drive.” Appellants respectfully submit that at least Fig. 1 and para. [0013] fully support the “computer readable medium” limitation of claims 8-11.

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D. Conclusion

For the reasons stated above, Appellants respectfully submit that the Examiner erred in rejecting all pending claims. It is believed that no extensions of time or fees are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required (including fees for net addition of claims) are hereby authorized to be charged to Hewlett-Packard Development Company's Deposit Account No. 08-2025.

Respectfully submitted,

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VIII. CLAIMS APPENDIX

1. (Previously presented) A processor-based method comprising:
 - selecting, by a user, at least one metric from an alternative representation of a database of existing data;
 - selecting a mapping based on the at least one metric;
 - invoking the mapping to create a search query;
 - invoking an interpreter to execute the search query and return data related to the search query; and
 - displaying the data related to the search query.
2. (Original) The method as defined in claim 1 wherein selecting further comprises selecting from the alternative representation of the database wherein the alternative representation is a reduced version of the existing data.
3. (Previously presented) The method as defined in claim 1 wherein selecting further comprises selecting a metric.
4. (Original) The method as defined in claim 1 further comprising:
 - generating a request based on the existing data from the request based on the at least one metric prior to the invoking; and
 - wherein the invoking further comprises invoking the interpreter using the request based on the at least one metric.
5. (Original) The method as defined in claim 4 wherein selecting further comprises selecting the at least one metric from the alternative representation of the database of existing data to create a generic structured query language (SQL) request based on the at least one metric.
6. (Original) The method as defined in claim 5 wherein generating further comprises generating a specialized SQL request based on the existing data from the request based on the at least one metric.

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7. (Original) The method as defined in claim 1 wherein the selecting further comprises selecting at least one metric from the alternative representation of the database of existing data, the alternative representation incorporated with the existing data in the database.
8. (Previously presented) A computer readable medium storing a program that, when executed by a processor of a computer, performs a method comprising:
 - maintaining existing data;
 - storing metrics related to the existing data;
 - selecting a mapping based on at least one metric;
 - using the selected mapping, mapping the existing data to the metrics; and
 - providing access to the existing data by referencing the metrics.
9. (Original) The computer readable medium as defined in claim 8 wherein mapping further comprises mapping the existing data to a set of predefined metrics.
10. (Original) The computer readable medium as defined in claim 9 wherein mapping further comprises utilizing a general mapping table to relate the existing data to the predefined metrics.
11. (Original) The computer readable medium as defined in claim 8 wherein the providing further comprises generating a specific query to the existing data using the metrics.
12. (Original) A system comprising:
 - a computer system having
 - a central processing unit (CPU);
 - a memory coupled to the CPU, the memory storing a reporting application executable by the CPU;

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a database coupled to the computer system, the database storing a previously created data set;
wherein the database comprises an alternative representation of the previously created data and an interpreter that executes search queries generated from mappings stored in the alternative representation.

13. (Original) The system as defined in claim 12 wherein the database is part of the computer system.

14. (Original) The system as defined in claim 12 wherein the reporting program allows a user to select at least one metric from the alternative representation of the database to create a request based on the at least one metric, and wherein an interpreter of the database modifies the request to pertain to the previously created data.

15. (Previously presented) The system as defined in claim 14 further comprising allowing the user to select a metric.

16. (Original) The system as defined in claim 14 wherein the reporting program allows a user to select at least one metric from the alternative representation of the database to create structured query language (SQL) request based on the at least one metric, and wherein an interpreter of the database replaces labels of the SQL request to pertain to the previously created data.

17. (Original) The system as defined in claim 12 wherein the database comprises a reduced representation as the alternative representation.

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18. (Original) A system comprising:
 - a computer system having
 - a means for executing programs;
 - a means for storing programs coupled to the means for executing, the means for storing a reporting application executable by the means for executing;
 - a database coupled to the computer system, the database storing a previously created data set;
 - wherein the database comprises an alternative representation of the previously created data and an interpreter that executes search queries generated from mappings stored in the alternative representation.
19. (Original) The system as defined in claim 18 wherein the reporting program allows a user to select at least one metric from the alternative representation of the database to create a request based on the at least one metric, and wherein an interpreter of the database modifies the request to pertain to the previously created data.
20. (Previously presented) The system as defined in claim 18 further comprising allowing the user to select a metric.

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IX. EVIDENCE APPENDIX

None.

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X. RELATED PROCEEDINGS APPENDIX

None.